

Socio-spatial Obstacles of Urban Sustainability in Historic Center of Cities in Iran

Mir Saeed Moosavi

Department of Architecture, Tabriz Branch, Islamic Azad University, Tabriz, Iran

ABSTRACT

The last decade has witnessed growing attention and speculation on the implications of sustainability taking doctrine for urban life. But, less attention has been paid to constraints and threats regarding sustainability in urban spaces in historic centers of cities, especially in developing countries like Iran. Only very recently, both the academic literature and the managerial body have started to scrutinize the ways in which sustainability can be related to and achieved in urban spaces of historic center of city. Besides, with rapid growth of urbanization in the world and increasing demand for modern and technologic life, pressure on cities and especially their historic centers will continue to mount leading to socio-spatial deficiencies in urban spaces. These deficiencies are all major obstacles for achievement of sustainability from an urban point of view. This paper overviews and examines the obstacles and challenges regarding implications of socio-spatial characteristics of urban environment in historic center of cities in Iran and is an attempt to analyze diverse challenges and contradictions regarding integration of contemporary urban life into environments and spaces in historic center of city in Iran.

Keywords: Historic Center, Sustainability, Urbanization, Urban Space.

INTRODUCTION

About two billion of the nearly six billion people alive today dwell in urban areas. By 2050, about six billion of the world's people will live in cities, with the greatest concentrations in cities in the so-called developing nations (Bos et al. 1994; United Nations 1993). This dramatic acceleration in urbanization of the earth's peoples—a tripling of the world's urban population over just two generations—poses daunting challenges of social and economic destitution and severe environmental degradation [1]. Cities of the great early civilizations which developed by incremental growth from a historic nucleus adopted common spatial or physical features with orientation to the path of sun and prevailing wind as well as encircling fortifications. Hierarchy, geomancy and cosmology were among the most influential planning and design concepts that were seen in almost all ancient civilizations. Besides, since the earliest of times, political, religious and other vested interests have been glorified in cities and, often, physically raised [2]. On contrary, our modern cityscapes show little awareness or any indication of their historical or cultural past. New architectural structures, urban squares, highway interchanges, and even historic preservation projects are not only integrated with the existing texture, but also create a sense of strangeness. Moreover, historical centers of cities are dangerous to live in; they had to be completely removed or reduced to museum pieces. Our physically and socially fragmented urban spaces and environments suffer from what sociologist Richard Sennett called "a surfeit of sameness," which has deterred individuals and groups from engaging their urban spaces and environments as unique communities and precipitated the decline of public or even humane realm. As a result, the new or so-called modern urbanism has reached a point in which recognition of urban culture and history with an emphasis on creating human-environment interaction, encouraging public engagement in civic affairs, and improving the public realm seems inevitable. It represents a convergence of evolving ideas in historic preservation, culture, identity, environmental psychology, public space design and management, and economic development [3]. In fact, urban systems emerge as distinct entities from the complex interactions among social, financial, and cultural attributes, and information, energy, and material stocks and flows that operate on different temporal and spatial scales. Urban environmental problems (e.g., air pollution, open space fragmentation and excessive fuel consumption) create the pressing need for urban sustainability. Such complexity poses a challenge to identify the causes of urban environmental problems and how to address them without causing greater deterioration [4].

In Iran, due to old roots of ancient cities and unique traditions of urbanization and urban life and unplanned acceptance of technology and modernity with their consequent changes, the challenges of urban sustainability are much more problematic in urban environments and spaces, especially in historic center of cities.

RESEARCH METHODOLOGY

In this research, systematic observation of historic center of some ancient cities of Iran including Isfahan, Tabriz, Shiraz, Mashad and even Tehran revealed common socio-spatial problems which can be classified by complementary

*Corresponding Author: Mir Saeed Moosavi, Department of Architecture, Tabriz Branch, Islamic Azad University, Tabriz, Iran. Tel.: +989141141761; fax: +984115573373; E-mail address: msmoosavi@iaut.ac.ir

information obtained from scientific sources. These observed problems are discussed along with their causes and consequences. The pictures included in the paper are for further clarification of the discussion.

Conceptions of Urban Sustainability

The goal of improving the social and economic conditions of an increasingly urbanized population while preserving life systems and maintaining environmental quality has become subsumed under the rubric of “urban sustainability”. But sustainability is a chaotic concept, so poorly theorized and laden with so many definitions that it risks plunging into meaninglessness, at best, and becoming a catchphrase for political demagoguery, at worst. The ideal of sustainability - widely but loosely defined as meeting today’s needs without compromising future generations - is used to justify and legitimate a myriad of policies and practices ranging from communal agrarian utopianism to large-scale, capital intensive market development [1]. Urban sustainability as described by many researchers is a mixture of various features of life including culture, social, economic and environment [5]. Hadi further defined urban sustainability as a capacity to sustain the quality of life we value or to which we aspire. In operational words, it is usually analysed as ornamental the environment, social, cultural and economic well-being of current and future inhabitants [5]. Urban sustainability has been also submitted as related to the concept of sustainable development [6].

Therefore, sustainable city is the city which preserves and improves the welfare of its residents whether in long or middle period of time and we can build the highest quality of life. Stability indicates that incorporated decisions are conducted in the economic, ecologic, and social results. Sustainable environment is supposed to be perseverance of natural resource which compels us to care about spending renewal materials and water and not overuse substances which natural system cannot provide. Moreover, we remember that the proportion of our expenditures of throwaway materials not be more than of reasonable limit that the natural sources cannot compensate; the best instances are oil and fossil fuel that don’t renew after use. At last the meaning of the sustainable environment is to observe this principle which indicates that the proportion of scatter contaminant in atmosphere and nature never be more than the absorbed capacity in air and soil and not be more than the nature’s ability of refinement [7].

Historic Center of Cities in Iran

The interpretation of the term historic encompasses architectural, social, urban, environmental expressions which are recognized as relevant and which express the social and cultural life of a community. From an urban point of view, historic center or district is the oldest nucleus of the city which has evolved in centuries and contains best examples of most precious monuments of the city. Ministries of Culture across the world and Organization of Cultural Heritage, Handicrafts and Tourism in Iran have been the pioneers to establish and monitor the norms, regulations, strategies and actions regarding identification, registration, conservation and restoration of historic buildings and quarters. In Iran, historic centre of 90 cities with a total area of 16000 hectares have been identified and registered by the organization of cultural heritage, handicrafts and tourism. Revitalization projects with diverse characters and frameworks have been planned and implemented in these areas which are in different stages due to historical, cultural and political priorities [3]. Table 1 illustrates a comparative summary of data on quantitative aspects of historic centers of some significant cities in Iran.

TABLE 1. REGISTERED HISTORIC CENTER OF CITIES IN IRAN

City	Area of Registered Historic Center (hectare)	Percentage to Total Area of the City
Ahvaz	95	5 %
Brujerd	280	6.5 %
Bushehr	350	2.5 %
Dezfool	500	7.5 %
Ghazvin	100	2.5 %
Isfahan	1200	9.2 %
Kashan	600	35 %
Mashah	1500	7.5 %
Rafsanjan	21	2 %
Sanandaj	90	2.5 %
Shiraz	375	3 %
Tabriz	421	3.5 %
Urmieh	417	3 %
Yazd	730	15 %
Zanjan	83	1 %
Zavareh	6	12 %

Moosavi, 2011

While the conservation of historic cities in the context of urban planning is an issue that has been explored for over half a century, such conservation efforts have yet to be well integrated into urban planning. At the same time, the complexity of

this particular field is increasing. Nevertheless, success in the preservation of historic cities will depend upon a holistic approach to the urban environment that integrates efforts to sustain heritage significance with the various measures that serve to make cities engaging, enriching, and livable [8]. Although several policies and strategies for revitalization of historic centers have been formulated in urban planning and management hierarchy of Iran, the desired level of urban revitalization has not been achieved yet. Lack of a clear restoration plan, funding shortages, poor coordination between those responsible for preservation and revitalization of ancient monuments, and lack of accountability on the part of the officials have always been mentioned as obstacles leading to gradual destruction of the historic texture in cities of Iran. But, one of the most important reasons for failure of revitalization plans in Iran is lack of enough understanding and attention to socio-spatial characters of historic center of city. Thus, any attempt to revitalize the historic center of city in Iran must take into account a diverse range of socio-spatial characteristics inherent in old city and the traditional urban life style while trying to integrate those characteristics into requirements and conditions of contemporary urban life [3].

Contemporary Situation in Historic Center of Cities in Iran

During the last century, unprecedented development of the urban environment has strongly influenced urban transformation. Rapid urban expansion, densification (or, conversely, decline and abandonment), inappropriate modern interventions, gentrification, and changes in uses are occurring worldwide, directly affecting the preservation of historic urban environments [8]. It is now completely clear that all cities all around the world are in a state of continuous transition and transformation. This process of continual transition and transformation occurs partly in response to the political, industrial, economic, and social changes and some believe that cities experience inflection points of growth and decline, both of which lead to transformation of urban space.

In historic centers of cities in Iran, development of new urban structures and spaces according to contemporary or so-called modern life standards and lack of attention and maintenance to older spaces and buildings, their characteristics and values, as well as their incompatibility with new trends, expectations and needs led to their deterioration. The contemporary or so-called modern city in Iran with its streets, squares and large-scale and inhumane open spaces and also new methods of construction of new buildings has all led to severe damages to historic center of city. The whole structure of historic cities in Iran changed due to introduction of modern urbanism during Pahlavi era. This change also led to creation of new urban spaces with new dimensions, characteristics, forms and functions. Besides, the historic center of ancient cities with a diverse set of precious and cultural heritage became influenced by the mentioned changes. This influence became much more obvious due to deep differences between old and new urban spaces and its consequences led to new obstacles in revitalization of old and historic district and texture of the city.

In fact, the repeated shocks of modernization are steadily eliminating the still-powerful characters of the city centre and the diversity of these lively districts. Problems faced in historic cities and heritage ensembles are often worse than those encountered in the contemporary urban structure of cities in the world because of unique character of historic center in each city. The physical, social, cultural conditions of a historic city, in the midst of what is called modern life, and the socio-spatial characteristics of urban spaces and environments in historic center of cities have led to both positive and negative consequences revealing strengths and weaknesses and creating new opportunities and also serious threats for urban life of the area [3]. Some of the major deficiencies of historic center of cities in Iran which can all contribute as considerable obstacles for achievement of urban sustainability are as follows:

- Insufficient vehicular access due to organic geometry and small dimensions of passageways
- Lack of green space and inadequacy of open space
- Lack of infrastructures such as sewage and drainage necessary for modern urban space
- Lack of visual integrity between new constructions and the old ones
- Lack of social interactions and urban functions
- Deterioration and decay of old buildings due to their age and inappropriate maintenance
- Incapability of old buildings to accommodate new functions
- Existence of ruined or abandoned buildings and areas
- Accumulation of old businesses and workshops
- Lack of catering or tourist attraction facilities for cultural utilization of historic heritage
- Weakness of planning and administrative framework for revitalization of historic center
- Lack of exclusive regulatory and management system

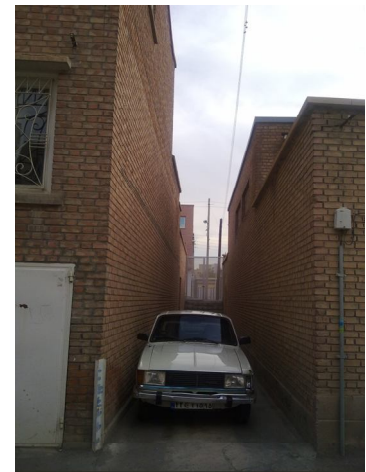
For the mentioned deficiencies, among all different causes and consequences, two major factors can be considered as the main causes of all socio-spatial problems in historic center of cities. These factors can be discussed under two main categories; first, incompatibility of urban space with vehicular circulation and second, structural decay and deterioration of buildings. Each of the factors is fully discussed below.

Incompatibility of Urban Spaces with Vehicular Circulation

In the ancient city, pedestrian circulation was the dominant mode of circulation and therefore, dimensions of all public spaces were adjusted for pedestrian movement. The human dimensions and scale of these spaces led to sense of safety and comfort for pedestrians creating opportunities for pedestrian activities [9]. On the other hand, a major layer of urban structure that has developed in the recent decades can be defined as the network of motorways and other high speed traffic routes. The development of this layer has had a clear impact on both the global structure of the city and on the local urban systems. The new structural layer, emphasizing on car based global movement, has not improved overlapping and interconnection of the local urban areas. The continuity of the older urban texture has been further interrupted, resulting in a vulnerable global urban structure characterized by very low integration and intensive dependence on limited links of a network of highways. In this process the self-contained housing estates developed in the previous periods have become more segregated in the global spatial system of the city [10] and introduction of mechanized transport has aided extensive urbanization and discouraged the *walking* city structure that was hitherto the dominant preoccupation all over. Suffice to say that the *walking* city has the pre-industrial compact urban morphology [11]. Thus, in cases with no urban intervention, due to small dimensions of open spaces, lack of enough space for vehicular circulation and parking has created lots of problems and inconvenience for residents. The function of some main streets with high integration has changed because of the movement of urban network during the evolvement era. Figure 1, 2 and 3 illustrate examples of old and organic passageways in historic center of Tabriz and Tehran. As it is obvious, the organic geometry and small dimensions of space is incompatible with vehicular access and can not accommodate new modern life dependent upon automobile.



Fig. 1,2,3



Structural Decay and Deterioration of Buildings

Most of the buildings in historic center of cities in Iran have been constructed by traditional materials without any kind of seismic resistance. Besides, most of the buildings were residential and overloading and exploitation of old buildings for new functions has led to further decay and destruction. There are several common structural problems in old buildings in historic center of cities in Iran. Many of these problems originate from weak or substandard techniques and methods of design or construction, insufficient foundations, weak or inadequate materials, or the effects of external forces such as wind, water, snow, live loading or earthquakes. The old district of city, incorporated into multi-purpose and multi-functional complexes, has become more complex in spatial three-dimension with the increase of size, density and functional diversity. The current development tendency in most of older districts of cities has been shown to be in conflict with preserving the character and identity of historic city. Figure 4 and 5 illustrate examples of deteriorated buildings in historic center of Tabriz and Isfahan. These buildings were constructed with masonry materials with no structural strength and have been deteriorated due to lack of attention and maintenance.



Fig. 4.



Fig. 5.

Conclusion

Problems faced in historic center of ancient cities of each country are often worse than those encountered in the contemporary or so-called modern areas of cities because of unique character and organization of historic center of city in each region. The physical, social, historical as well as cultural conditions of a historic city, in the midst of what is called modern or technological life, and the socio-spatial characteristics of urban spaces and environments in historic center of cities in Iran have led to both positive and negative consequences, but the negative ones or the deficiencies are much more obvious revealing vulnerable nature of such areas and also creating serious threats for urban life of the area.

Among all different causes and consequences, two major factors can be considered as the main causes of all socio-spatial problems in historic center of cities. These factors can be discussed under two main categories; first, incompatibility of urban space with vehicular circulation and second, structural decay and deterioration of buildings.

Besides, in the case of historic centers of cities, it has been well recognized over the last decades that these areas are not constituted solely by material and physical structure or heritage but also include the natural and cultural landscape, and above all, the residents, culture and customs, activities and behaviors, economic and social relations, religious ceremonies, beliefs, and urban or even religious rituals.

Therefore, any attempt to establish urban sustainability in historic center of cities in Iran shall start with a thorough understanding of the mentioned obstacles and speculating on comprehensive solutions considering all physical and nonphysical aspects.

Acknowledgement

This paper was extracted from a research which was conducted by financial support of Islamic Azad University, Tabriz Branch.

REFERENCES

- 1) Jones, R. and Pincelt, S., *Towards a Comprehensive Geographical Perspective on Urban Sustainability*, Final Report of Workshop on Urban Sustainability, Annual Meeting of the Association of American Society of Geographers, Honolulu, Hawaii, April 1999.
- 2) Morris, A. E. J., 1994, *History of Urban Form: Before the Industrial Revolutions*. Longman, Harlow.
- 3) Moosavi, M. S., 2011, *An Analysis to Challenges and Contradictions in Revitalization of Historic Center of Cities in Iran*, Interdisciplinary Themes Journal, 3.1, pp. 158-162
- 4) Zellner, M. L. et al. 2008, *A New Framework for Urban Sustainability Assessment*, Journal of Computers, Environment and Urban Systems, pp. 474-488.
- 5) Hadi, A.S., S. Idrus, A.H.H. Shah and A.F. Mohamed, 2007. Shaping Livable Cities for Malaysia. In: *Modelling Local Sustainability: Developing a Conceptual Framework for Sustainable Development*, Hadi, A.S., S. Idrus, A.H.H. Shah, A.F. Mohamed and N.M. Hamim (Eds.). LESTARI, Universiti Kebangsaan Malaysia, Bangi, pp: 11-18.
- 6) H.M. Rusli Zaina, Muhammad Rizal Razman and Jamaluddin Md Jahi, 2011. Interest on Costs and Benefits Approach in Urban Sustainability: Focusing on the Precautionary Principle. *International Business Management*, 5: 114-118.

- 7) Farhadian, A. H., and Zare, L., 2011, Environment and Sustainable Development of Urban Areas, *J. Appl. Environ. Biol. Sci.*, 1(10)437-440, 2011
- 8) Descamps, F., *The Conservation of Historic Cities and Urban Settlements Initiative*, published online at: www.getty.edu/conservation/publications_resources/newsletters/26_2/historic.htm
- 9) Sultanzadeh, H., 2005, *Urban spaces in Historic Cities of Iran*. Cultural Research Bureau, Tehran, Iran, 2005, pp. 56-60.
- 10) Azimzadeh, M. and H. Bjur, 2007, The Urban Palimpsest: the interplay between the historically generated layers in urban spatial system and urban life", *Proc. of 6th International Space Syntax Symposium*, İstanbul, Turkey, 2007.
- 11) B. Akinbamijo Olumuyiwa and Osunsanmi Gbolabo , 2007. Access in Cities and Sustainable Urban Transport- A Challenge for Third World City Planning Practice . *Pakistan Journal of Social Sciences*, 4: 654-661.